## We Claim:

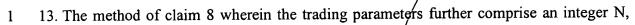
| 1  | 1. A system for processing trades of securitized instruments based on security orders as |
|----|--|
| 2  | quotes received from client computers, comprising:                                       |
| 3  | at least one server computer comprising a memory, and a processor, said server computer  |
| 4  | configured to perform the steps of:  |
| 5  | receiving orders and quotes, wherein specified ones of said quotes belong to             |
| 6  | quote group, and wherein said specified ones of said quotes have associated tradi-       |
| 7  | parameters comprising a risk threshold;  |
| 8  | generating a trade by matching said received orders and quotes to previous               |
| 9  | received orders and quotes;  |
| 10 | storing each of said orders and quotes when a trade is not generated;                    |
| 11 | determining whether a quote having associated trading parameters has be                  |
| 12 | filled as a result of the generated trade, and if so, determining a risk level and       |
| 13 | aggregate risk level associated with said trade;   |
| 14 | comparing said aggregate risk level with said risk threshold; and,                       |
| 15 | automatically modifying at least one of the remaining said specified ones of sa          |
| 16 | quotes in the quote group it said threshold is exceeded.                                 |
| 1  | 2. The apparatus of claim 1 further comprising a quote data structure stored in said fi  |
| 2  | memory, said data structure containing a plurality of quotes fields and at least one ri  |
| 3  | threshold field.   |
| 1  | 3. The apparatus of claim 2, wherein said plurality of quote fields comprises a bid quo  |
| 2  | field and an offer quote field.  |
| 1  | 4. The apparatus of claim 2, wherein said data structure further comprises a gro         |
| 2  | indicator figld.   |
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|   | 1  | 5.          | The apparatus of claim 2, wherein said data structure further comprises a quote          |
|---|----|-------------|--|
|   | 2  |             | modification increment field.  |
|   | 1  | 6.          | The apparatus of claim 2, wherein said data structure further comprises a quote          |
|   | 2  |             | regeneration increment field.  |
| 7 B   | 1  | 7.          | The apparatus of claim 2, wherein said data structure further comprises an owner field.  |
| JUL .   | 1  | <b>√</b> 8. | A method of modifying quotes in an automated exchange trading system that receives       |
| ) [\]   | 2  |             | orders and quotes from remote computers, matches the orders and quotes to generate       |
| 1/  | 3  |             | trades, and stores orders and quotes that are unmatched, comprising the steps of:        |
|   | 4  |             | receiving trading parameters comprising a risk threshold;                                |
|   | 5  |             | associating said trading parameters with specified ones of received quotes;              |
|   | 6  |             | determining whether a quote having associated trading parameters has been                |
| ##<br>###<br>%. !   | 7  |             | filled as a result of a generated trade, and if so, determining a risk level and an      |
|   | 8  |             | aggregate risk level associated with said trade;   |
| ing and all and and and and all and and and and and and and and all and | 9  |             | comparing said aggregate risk level with said risk threshold; and,                       |
| 9   | 10 |             | automatically modifying at least one of the specified ones of received quotes if         |
|   | 11 |             | said threshold is exceeded.  |
| որ՝ որ՝ գուլ գուս տոլ<br>Աոյի ճույի ճում կա   | 1  | 9.          | The method of claim 8 wherein the step of determining a risk level comprises             |
| 1   | 2  |             | calculating a delta value for the generated trade.                                       |
|   | 1  | 10          | . The method of claim 8 wherein the step of determining a risk level comprises           |
|   | 2  |             | calculating a trading volume for the generated trade.                                    |
|   | 1  | 11          | . The method of claim 8/wherein the step of determining an aggregate risk level          |
|   | 2  |             | comprises determining anet delta.  |
|   | 1  | 12          | . The method of claim 8/wherein the trading parameters further comprise a time duration, |
|   | 2  |             | and wherein the step of determining an aggregate risk level comprises summing the        |
|   | 3  |             | deltas from trades involving at least a subset of quotes contained in said quote group   |
|   | 4  |             | that were executed within the time duration.   |

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- and wherein the step of determining an aggregate/risk level comprises summing the
- deltas from the most recent N trades involving at least a subset of quotes contained in
- 4 said quote group.
- 1 14. The method of claim 8 wherein the step of determining an aggregate risk level
- 2 comprises determining a net contract volume.
- 1 15. The method of claim 8 wherein the step of determining an aggregate risk level
- 2 comprises determining a weighted sum of contract volumes.
- 1 16. The method of claim 8 wherein the step of determining an aggregate risk level comprises determining an aggregate volume quantity.
- 1 17. The method of claim 8 wherein the step of automatically modifying at least one of the
- 2 specified ones of said received quotes comprises canceling all said specified ones of
- 3 said received quotes.
- 1 18. The method of claim 8 wherein the step of automatically modifying at least one of the
- specified ones of said received/quotes comprises reducing the quantity associated with
- 3 the specified ones of received quotes.
- 1 19. The method of claim 8 wherein the step of automatically modifying at least one of the
- specified ones of said quotes comprises revising at least one of the bid and offer values
- of each of the specified ones of received quotes.
- 1 20. The method of claim \( \forall \) wherein the trading parameters comprise a positive risk
- 2 threshold and a negative/risk threshold.
- 1 21. The method of claim 20 wherein the step of comparing the aggregate risk level with the
- 2 risk threshold comprises comparing the aggregate risk level to the positive risk
- 3 threshold if the aggregate risk level is positive, and comparing the aggregate risk level
- 4 to the negative risk threshold if the aggregate risk level is negative.

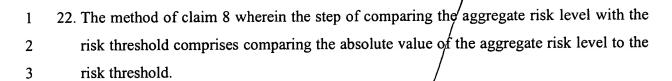
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- 23. The method of claim 8 wherein each of the specified ones of received quotes are associated with one of a first subgroup and second subgroup, and wherein the step of automatically modifying at least one of the specified ones of received quotes in the quote group comprises reducing the offer values of the quotes in the first subgroup and raising the bid values of the quotes in the second subgroup.
- 24. The method of claim 23 wherein the first subgroup comprises quotes on call series options and the second subgroup comprises quotes on put series options, and wherein the aggregate risk is positive.
- 25. The method of claim 23 wherein the first subgroup comprises quotes on put series options and the second subgroup comprises quotes on call series options, and wherein the aggregate risk is negative.
- 26. The method of claim 23 where the amount of said reducing and raising is determined in response to a modification increment parameter.
- 27. The method of claim 8 further comprising the step of automatically modifying a quote comprises regenerating a quote having associated trading parameters that has been filled as a result of the generated trade.
- 28. The method of claim 27 wherein the step of regenerating a quote is performed utilizing a regeneration increment.
- 29. In a system, for processing trades of a security, that includes a computer that receives orders and quotes, executes a trade by matching the received orders and quotes, and stores received orders and quotes for which a trade is not executed, a computer-based risk monitoring apparatus, comprising:

| 5  | a quote service module that associates market-maker trading parameters comprising               |
|----|---|
| 6  | a risk threshold with at least one received quote; and  |
| 7  | a broker service module that communicates with the quote service module, wherein                |
| 8  | the broker service module automatically executes trades and provides corresponding fill         |
| 9  | reports to said quote service module, and wherein the quote service module modifies             |
| 10 | received quotes in accordance with the trading parameters and the fill reports.                 |
| 11 |   |
| 1  | 30. In a system for processing trades of securitized instruments, the system including a        |
| 2  | computer having a memory and a processor, said computer being configured to perform             |
| 3  | the steps of receiving orders and quotes, generating a trade by matching said received          |
| 4  | orders and quotes to previously received orders and quotes, and storing each of said            |
| 5  | orders and quotes if a trade is not generated, a method for managing risk comprising the        |
| 6  | steps of:   |
| 7  | identifying specified ones of said quotes as belonging to a quote group;                        |
| 8  | associating trading parameters comprising a risk threshold with specified ones of               |
| 9  | said quotes;  |
| 10 | determining whether a quote having associated trading parameters has been filled as             |
| 11 | a result of the generated trade, and if so, determining an aggregate risk level associated with |
| 12 | said trade;   |
| 13 | comparing said aggregate risk level with said risk threshold; and                               |
| 14 | automatically modifying at least one of the remaining said specified ones of said               |
| 15 | quotes in the quote group if said threshold is exceeded.  |
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